

135-9-2/24

Resurfacing of Worn Automobile Parts by Automatic Arc-Welding under Flux

passes helical beads with wide pitches with the gap left in the first pass being filled during the second one. Anti-friction properties of metal deposited by using welding rods "CB-08", "CB 10-ΓA", "13Γ2X" (ЭМ681) and "CB-30XΓCA" were equal to, or higher than of normalized steel "45". No harmful effect of forced cooling was observed. Since February 1955, 28 automobiles with automatically resurfaced as well as with new parts are undergoing service tests in the Ukraine. Measurements after running 10,000 - 30,000 km did not reveal any noticeable wear. There are 5 schematic drawings, 3 tables, 2 photographs, 1 diagram, and 3 references (all Russian)

AVAILABLE: Library of Congress

Card 2/2

POPOVICHENKO, M.S.; TORZHESENEVSKIY, V.M.

Antifriction discs made from wood and caprons. Elek. i tepl.  
tiaga no.6:24-25 Je '62. (MIRA 15:7)

1. Nachal'nik tekhnicheskogo otdela sluzhby lokomotivnogo  
khozyaystva Pridneprovskoy dorogi (for Popovichenko). 2. Instruktor  
po svarke sluzhby lokomotivnogo khozyaystva Pridneprovskoy dorogi  
(for Torzhesnevskiy).  
(Electric locomotives--Equipment and supplies)

POPOVICHENKO, R. M.; KOZHAKANOV, S. K.

Testing a diesel-powered bulldozer with a catalytic exhaust scrubber.  
Vest. AN Kazakh. SSR. 19 no.6:33-39 Je '63. (MIRA 17:7)

(POPOVICHENKO, R.M.; ROMASHKIN, M.I.

Studying the function of the catalytic cleaner for exhaust gases  
from diesel engines of mining machinery. Vest.AN Kazakh.SSR 16  
no.12:10-18 D '60. (MIRA 14:1)

(Mine gases)

(Gases--Purification)

POPOVICHENKO-ZUBASHEVA, A. L., Cand Med Sci -- (diss) "Growth morphology of the stellate ganglion." Karaganda, 1960. 20 pp; (Karaganda State Medical Inst); 250 copies; price not given; (KL, 21-60, 131)

SOV/128-59-9-10/25

18(5), 28(1)  
AUTHOR:

Popovichev I.F., Engineer

TITLE:

Four-Way Vertical Conveyor Type Core-Baking Oven

PERIODICAL:

Liteynoye proizvodstvo, 1959, Nr 9, pp 32-33 (USSR)

ABSTRACT:

The Institute Gipromavtoprom has worked out a new type of four-way vertical core-baking oven built on the model of the vertical conveyor oven installed at the Yaroslavskiy Automobile Plant. In 1956-1957, two of such ovens were built at the Lipetsk Tractor Works (LTZ). The layout of the oven is given in Fig. 1. During the baking process, the worked piece is heated up to 300°C. The conveyor is driven by an electric motor of 7 kw; its speed varies from 0.2 to 0.8 m a minute. A fire-chamber and blowing fans are placed beside the conveyor; the blowing capacity of a fan is 2000 m<sup>3</sup>/hour; the pressure - 600mm of water column. Construction of the inside channels of the oven provides the movement of hot gases from above downwards to meet the conveyor movement. Such a contrary movement of gases, unlike that occurring in common two-way ovens, secures a gradual heating of cores, uniform evaporation of moisture from them, and

Card 1/2

Four-Way Vertical Conveyor Type Core-Baking Oven

SOV/128-59-9-10/25

a regular temperature rise during the process of baking. The gases entering into the oven have a temperature of  $350^{\circ} - 420^{\circ}\text{C}$ ; as a fuel black oil is used; it enters the oven through 3 nozzles, 2 of which are in operation and the third remains in reserve. The fuel consumption is 70-90 kg an hour. The four-way ovens are used by the LTZ for baking of cores applied for casting of tractor parts weighing from 5 to 40 kg. The oven efficiency varies from 2.2 to 4 tons an hour depending on weight and size of the cores treated. There are 1 table and 4 diagrams.

Card 2/2

POPOVICHEVA, N.K.; BIRYUKOV, A.A.; SHLENSKAYA, V.I.

Determination of the stability constants of palladium (II)  
bromide complexes. Zhur. neorg. khim. 9 no.6:1482-1483 Je '63  
(MIRA 17:8)



PRIBOIANU, I.; POPESKO, E.; DINULESCO, I.; POPOVICH, N.; TUDOZE, M.

Our experience with the treatment of spinal cord compression  
following spondylitis. Khirurgia 15 no.2/3:252-253 '62.

(SPINAL CORD dis)  
(TUBERCULOSIS SPINAL compl)

PASCALIDE, Gh., ing.; POPOVICI, Ana, ing.; DUMITRESCU, Doina, chimist; ZAREA, Silvia, ing.; GHEORGHE, Elena, chimist

Research and results in the field of synthesis and utilization of flotation reagents. Rev min 15 no.11:592-595 N '64.

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																										1ST AND 2ND ORDERS																									
SA																										ASS																									
<p>530.12 : 530.145</p> <p>5933. The physics of action. A new unitary physics. PUPOVIC, A. <i>Bull. Inst. Polytech. Jassy</i>, 3, 543-682 (Jul-Dec., 1948) <i>In French</i>.—The physics of action is a new theory which sets out to unify relativistic and quantum physics; and the principal section of the thesis is a mathematical account of a theory, based on abstract groups and a certain hypercomplex number system which forms the basis for a vector space <math>S_{12}</math> of 12 dimensions. The unity of matter and the metric, of electromagnetism and gravitation, and of time and space, is realized in this space <math>S_{12}</math>. L. S. G.</p>																																																			
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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									

Popovici, A.

Mathematical Reviews  
Vol. 14 No. 11  
Dec. 1953  
Relativity

Popovici, Andrei. Sur les equations unitaires de la gravitation et de l'electromagnetisme. Comptes Rendus du Premier Congres des Mathematiciens Hongrois, 27 Aout-2 Septembre 1950, pp. 665-672. Akademiai Kiado, Budapest, 1952. (Hungarian and Russian summaries)

This paper states in outline form a unified field theory for the gravitational and electromagnetic fields. It involves a twenty-four-dimensional space whose metric tensor is a linear combination of the metric tensor of six four-dimensional spaces, each of which is taken to satisfy the field equations of general relativity.

A. H. Taub.

POPOVICI, A., ing.

Optimum leaning angle of reinforced concrete conduits. Hidrotehnica  
8 no.2:41-48 F '63.

POPOVICI, A.

The general-relativist conformable theory of the tensorial and spinorial fields. I. Equations of the field. p. 877.

COMUNICARILE. Bucuresti, Rumania. Vol. 8, no. 9, Sept. 1958

Monthly list of European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

*Popovici, A.*

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*Popovici, A.* Les bases experimentelles et théoriques de la  
théorie des constantes physiques. Rev. Univ. "C. I.  
Parhon" Politehn. București. Ser. Ști. Nat. I (1952),  
no. 1, 77-98. (Romanian. Russian and French sum-  
maries)

From the author's summary: „Nous venons préciser les  
bases experimentelles et théoriques d'une théorie unitaire  
des constantes physiques universelles (continues et quanti-  
ques) liée à la théorie des groupes finis" [development of  
the same author's paper in Acad. R. P. Roum. Bul.  
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*Group*

*up* *Sm* *Phys.*  
*physical constants*

POPOVICI, Ana, ing.; ZARUA, Silvia, ing.

Flocculations for the mining industry. Rev min 15 no.10:421-426 0 161.



Popovici, Andrei

Popovici, Andrei. Le principe de la réciprocité en théorie relativiste conforme. Rev. Univ. "C. I. Parhon" Politehn. București. Ser. Ști. Nat. 2 (1953), no. 3, 78-131. (Romanian. Russian and French summaries)

POPOVICI, ANDREI: The Principle of Reciprocity in the Conformed Relativity Theory

*Popoviciu A*

**Popoviciu, Andrei.** Dédouction variationnelle des équations gravitationnelles et électromagnétiques, conformes covariantes de II<sup>e</sup> ordre. Acad. R. P. Roumaine. Bul. Sti. Sect. Sti. Mat. Fiz. 6 (1954), 65-99. (Romanian. Russian and French summaries)

L'A. indique comment on peut déduire les équations gravitationnelles et électromagnétiques de sa théorie [Rev. Univ. "C. I. Parhon" Politehn. Bucuresti. Ser. Sti. Nat. 2 (1953), no. 3, 78-131; MR 17, 903] d'un principe variationnel basé sur l'hamiltonien  $H = (R^2 + A^2)/2$ , où  $R$  est une courbure scalaire conforme et  $F_{ij}$  le tenseur antisymétrique correspondant au champ électromagnétique. Les équations obtenues présentent l'invariance conforme. Les relations de conservation correspondantes sont explicitées et le cas du champ statique à symétrie sphérique étudié. Quelques remarques concernant la théorie du champ non symétrique, l'électrodynamique non linéaire et les aspects ondulatoires terminent le papier.

A. Lichnerowicz (Paris)

*Relativity*

*tensor*

*Electromagnetic equations*

*Hamiltonian*

*Some use*

POPOVICI, A.

"Preparation of Didactic Activity in Mathematics for the School Year 1954-1955, Grades 9 and 10", p. 140, Issued by the Rumanian Society of Mathematics and Physics, Monthly. (GAZETE MATEMATICA SI FIZICA, SERIA A., Vol. 6, No. 8/9, Aug./Sept. 1954. Bucuresti, Rumania).

SO: Monthly List of East European Accession, (EEAL) LC, Vol. 4, No. 5, May 1955.

POPOVICI, A.

"Research on the quantum theory connected with Soviet research", p.384;  
"Issued by the Rumanian Society of Mathematics and Physics, Monthly".  
(GALETA MATEMATICA SI FIZICA. SERIA A., Vol. 6, 8/9, Aug./Sept. 1954.  
Bucuresti, Rumania).

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No.5,  
May 1955, Uncl.

POPOVICI, A.

"Fundamentals of Newton's Mechanics", p. 393, Issued by the Rumanian Society of Mathematics and Physics, Monthly. (GAZETA MATEMATICA SI FIZICA, SERIA A., Vol. 6, No. 8/9, Aug./Sept. 1954. Bucuresti, Rumania).

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May 1955, Uncl.

POPOVICI, ANDREI

✓ Popovici, Andrei, Le déterminisme quantique. Rev.  
L'Ind. "C. Parhon" Politehn. București. Ser. Ști.  
Nat. 4 (1955), no. 6-7, 105-147. (Romanian. Russian  
and French summaries)

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POPOVICI, ANDREI

Category : RUMANIA/Theoretical Physics - Quantum Mechanics

B-4

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 5649

Author : Popovici, Andrei

Title : Quantum Determinism

Orig Pub : Rev. Univ. ((C.I. Parhon)) so Politehn. Bucuresti. Ser. stint.  
natur., 1955, No 6-7, 105-147

Abstract : No abstract

Card : 1/1

Popovici, Andrei

✓ Popovici, Andrei. Le déterminisme quantique et la loi de la réciprocité. II. Acad. R. P. Roum. Bul. Sti. Sect. Sti. Mat. Fiz. 8 (1956), 121-181. (Romanian. Russian and French summaries) 1-F/W



POPOVICI A.

"Particles and antiparticles."

p. 520 (Gazeta Matematica Si Fizica) Vol. 9, no. 10, Oct. 1957  
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

POPOVICI, Andrei

Conformal theory of spinor fields. I. Rev math pures 4 no.4:  
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(Spinor analysis) (Conformal mapping) (Matrices)  
(Fields, Algebraic) (Spaces, Generalized)

POPOVICI, Andrei

On the axioms of the general field theory. Rev math pures 5 no.2:  
411-449 '60. (EEAI 10:9)

(Field theory) (Relativity(Physics)) (Axioms)

POPOVICI, A.; DEMAYO, A. (Bucuresti)

Curvature tensors of the 6th order in Vn. Pt.1. Bull  
math Rum 4 no.1/2:91-105 '61.

1. Submitted November 1, 1962.

POPOVICI, Andrei

Equations of the 6th tensorial order in the theory of field fusion. Comunicarile AR 12 no.4:387-392 Ap '62.

1. Comunicare prezentata de academician G.Vranceanu.

POPOVICI, Iulian; POPOVICI, Andrei [deceased]

Determination of quadrispinors reattached to the 1 and 1/2  
maximum spin fields. Rev math Roum 9 no.7:655-666 '64

VRANCEANU, G.; POPOVICI, A. [deceased]

Bases of the general theory of relativity. Pt. 2. Studii cerc  
mat 15 no. 5:547-593 '64.

POPOVICI, A

1. "Comparative Determination of Various" Prof. Ch. C. Popovici, Part 1, Vol. 1, Part 2, Bucharest, 1958, pp. 1-10.
2. "Comparative Study of the Methods of Histologic Determination as Applied in Toxicology" Prof. N. D. Popovici, Part 1, Vol. 1, Part 2, Bucharest, 1958, pp. 1-10.
3. "Study of Some New Oil Used in Histologic Determination" Prof. N. D. Popovici, Part 1, Vol. 1, Part 2, Bucharest, 1958, pp. 1-10.
4. "The Identification, Determination and Detection of Alkaloids from Soluble Salts" Prof. N. D. Popovici, Part 1, Vol. 1, Part 2, Bucharest, 1958, pp. 1-10.
5. "Determination in Non-Aqueous Solving of the Histologic and Various Content in 'Popovici' Part 1, Vol. 1, Part 2, Bucharest, 1958, pp. 1-10.
6. "Contribution to the Use of 'Popovici' in the Drug Dispensing" Prof. N. D. Popovici, Part 1, Vol. 1, Part 2, Bucharest, 1958, pp. 1-10.



Country : RUMANIA  
Category : Diseases of Farm Animals. R  
          Diseases Caused by Bacteria and Fungi.  
Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96985  
Author : Baies, I.; Popovici, A.; Mircescu, Gh.  
Institut. : -  
Title : Epizootological and Therapeutical Observations  
          at the Focus of Trichophytosis of Calves.  
Orig. Pub. : Probl. zootehn. si veterin., 1958, No 2, 45-48  
Abstract : No abstract.

Card: 1/1

POPOVICI, Agora

1  
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POPOVICI, Alexandru C., ing.

A comparative study of synchronous generators to be used  
in television. Telecomunicatii 7 no. 4: 164-174 J1-Ag  
'63.

POPOVICI, Alex, ing.; TATU, Gheorghe, ing.; NICOARA, Pavel, ing.;  
BABUTIA, Ion, ing.; CRACIUNESCU, Victor, ing. (Timisoara)

On the reduction of supplementary no-load losses in  
asynchronous motors. Electrotehnica 12 no.5:166-171 My'64.

1. Director, "Electromotor" Enterprise, Timisoara (for  
Popovici). 2. Assistant Chief, "Electromotor" Enterprise,  
Timisoara (for Tatu, Nicoara). 3. Head of the  
Laboratories, "Electromotor" Enterprise, Timisoara  
(for Babutia). 4. Assistant Chief Designer, "Electromotor"  
Enterprise, Timisoara (for Craciunescu).

POPOVICI, ANDREI

DECEASED

1965

c 1964

POPOVICI, Al. C.  
SURNAME (in caps); Given Names

Country: Rumania

Academic Degrees: Engineer

Affiliation: -not given-

Source: Bucharest, Stiinta si Tehnica, No 6, Jun 1961, pp 28-29.

Data: "Information on the Theory of Information."

POPOVICI, AUREL

5

The decomposition of sodium amalgam. Constantin Calistru, Aurel Popovici, Cornelia Leonte, and Neculai Petcov. *Rev. Rep. Romaniae Romine (Iasi), Studi chimici*, 5, No. 1/2, 189-90 (1954). Conditions were investigated in which external elec. current was applied to the graphite-Na-amalgam local cells to decomp. the latter. The decompn. speed of Na amalgam could be doubled. The external elec. current was useful only when the current, through each graphite electrode, was below  $\approx 0.700$  amp. The thickness of the amalgam layer on the electrode could not exceed 5 mm. This method permitted the utilization of a smaller amt. of Hg and at higher concn. of NaOH in the industrial cells, even with external elec. energy. If the initial current on each electrode, and the amalgam layer thickness did not exceed a predtd. value, for the decompn. of Na amalgam by the conventional effect of graphite, the speed was an inverse function of the initial p.d. between graphite and amalgam. It was proposed that this p.d. could be diminished by lowering the graphite in amalgam more than is usual at present. T. Z. Denessy

PM

Popovici-H.

Kinetic composition of sodium amalgam in solutions of sodium hydroxide. Const. Calistru, Aurel Popovici, Cornelia Leonte, and Gayer Hercovici. *Rev. populare Romina (Iasi), Studii cercetari stiint.* 5, No. 1/2, 197-213 (1954).--The av. speed of decompn. of Na amalgam was variable, but it occurred unexpectedly during degradation. This phenomenon was observed during the decompn. of amalgam by H<sub>2</sub>O or dild. and concd. solns. of NaOH at 25-50° in a cell-insol. electrode [NaOH soln.] amalgam, (short-circuit caused by the container as in the decompn. of the same unit in direct short-circuit, where the insol. electrode was placed in the amalgam). The variation was graphically traced as a function of time-amalgam [NaOH soln.] insol. electrode (at short-circuit) with ammeter. The decompn. speed could be promoted generally, if in some cases, the existence of a period was considered when the amalgam preponderantly decompd. at the fastest rate, independent of the insol. electrode. The factors which promoted the H overvoltage decreased at the insol. electrode and facilitated the decompn. speed during the most active period of the process. On the base of the modification periods of decompn. speed, amalgam and NaOH soln. circulation could be concurrent or countercurrent. After the abrupt decrease in the decompn. speed, the Na sediment could be linked to the amalgam layer, thereby decreasing its initial thickness which, in turn, generally could shorten the final decompn. time. SiC and graphite were used as insol. electrodes. A partial or total substitution of the graphite by silicon carbide increased the decompn. speed of the amalgam, but in case of substitution, the time variations in the speed of decompn. had to be considered as well as the thickness of the amalgam layer. T. Z. Denessy

PM



POPOVICI, AUREL

7 7  
The influence of electrode distance in the electrolysis of  
Nadium chloride with a mercury cathode. C. Calistru,  
Aurel Popovici, and Cornelia Leonte (Inst. Politeh. Inst. de  
Rep. populaire, România). *Bul. inst. politeh. Iasi* 1, No.  
1/2, 67-73 (1955). — This paper presents the results obtained  
in studying the effect of the distance between electrodes on  
the efficiency of the electrolysis. Temp., contr., electrolyte  
circulation, and c.d. were also considered. It was found  
that a max. efficiency can be obtained for short distance be-  
tween the electrodes. In this case the temp., c.d., and  
electrolyte circulation are crit. R. Mavrodineanu

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Popovici, A.

Distr: 4E3d

Hydraulic fissures and the use of radioactive isotopes  
A. Popovici: *Petrol si Gaz* (Bucharest) 7, 461-4 (1956) (Ger- 19  
man summary). Addn. of 250 g. of radioactive sand (Co<sup>60</sup>,  
43,000 counts/min., each granule imbedded in bakelite)  
to 100 kg. of ordinary sand considerably facilitated the  
search for the location and characterization of hydraulic  
fissures in low-permeability oil wells. Gary Gerard. //

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POPOVICY C.

6

The manufacture of high-quality ferromanganese from indigenous minerals. Al. Rău, D. Stănescu, D. Bricean, and C. Popovici. *Comun. Inst. rep. populare Române* 3, 131-133, 1958. Oxidic ores were found to be unsatisfactory for the prepn. of high-quality ferromanganese, as they only yielded a product contg. 60-68% Mn and 0.5-1.15% P. A preferential reduction in the blast furnace made it possible to pass 81% of the Mn into the slag, while 3.6% of the Mn content of the ore was lost through volatilization. The remaining Mn and nearly all the Fe and P were transferred into the spiegelisen. The resulting slag (synthetic mineral) yielded a ferromanganese of 70-80% Mn and a max. of 0.23% P. In order to control the Si content, dolomite was used for part of the limestone necessary to prep. this synthetic mineral. This method thus allows the prepn. of a high-grade ferromanganese from low-grade ores. Previously known deposits of rhodonite in Bucovina were found to contain Mn carbonate and not silicate. The burned carbonate mixed with the synthetic mineral was also used with good success for the prepn. of high-quality ferromanganese. Francisc Kertész.

POPOVICI, V.

TECHNOLOGY

Periodicals: METALURGIA SI CONSTRUCTIA DE MASINI. Vol. 10, no. 5, May 1958

POPOVICI, V. Materials and equipment for welding. p. 435

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2,  
February 1959, Unclass.

BADARAU, E., acad.; POPOVICI, C.

Spectral aspects in the transformation of methane under the action of a high-frequency discharge. Studii cerc fiz 11 no.3:557-562 '60.  
(EEAI 10:2)

1. Institutul de fizica al Academiei R.P.R.  
(Methane) (Spectrum analysis) (Acetylene)  
(Cyclopentadiene) (Indene)  
(Electric discharges through gases)  
(Polymers and polymerization)

Popovici, C.

RUMANIA/Pharmacology - Toxicology. Toxicology.

U-9

Abs Jour : Ref Zhur - Biol., No 3, 1958, 13139

Author : Goldstein, I., Popovici, C.

Inst : -

Title : Blood Pigment Changes in Acute Experimental Nitrobenzene Poisoning.

Orig Pub : Igiena, 1957, 6, No 1, 10-19.

Abstract : No abstract.

Card 1/1

USCOMM-DC-55,055

POPOVICI, C.; ROGAY, E.

Density of power currents in the electromagnetic field of power lines. p. 43.

STUDII SI CERCETARI DE FIZICA. Bucuresti. Vol. 6, no. 1, Jan/Mar. 1955.

So. East European Accessions List

Vol. 5, No. 9

August, 1956

POPOVICI, Constantin P.

"Geometrization of continuous fractions" by Gabriel Sudan.  
Revised by Constantin P. Popovici. Rev math pures 6 no.4:799-801  
'61.



POPOVICI, G.

"Some achievements in the field of astronomy and astrophysics with special reference to collaboration with Soviet astronomers", p. 386; "Issued by the Rumanian Society of Mathematics and Physics, Monthly". (GAZETA MATEMATICA SI FIZICA. SERIA A. Vol. 6, no. 8/9, Aug./Sept. 1954, Bucuresit, Rumania.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 5, May 1955, Uncl.

POPOVICI, C.

Simultaneous determination of time, latitude, and azimuth, by means of a universal instrument, p. 25.

( ANALELE. SERIA STIINTELOR NATURII. Rumania. Vol. 5, no, 10, 1956)

SO: Monthly List of East European Accessions (EEAL) LC, Vol, 6, no. 7, July 1957, Uncl.

POPOVICI, C. ; SORU, I.

Solar observations: Rotations 1363-1368, July 28, 1955 - January 7, 1956. p. 81.  
(ANALELE. SERIA STIINTELOR NATURII. Rumania. Vol. 5, no. 11, 1956)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

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POPOVICI, C. Convergent point of the Ursa Major cluster. p. 193.

Vol. 8, no. 1, Jan./Mar. 1956  
BULETIN STIINTIFIC.

SCIENCE  
RUMANIA

So: East European Accession, Vol. 6, No.5, May 1957

POPOVICI, C.

POPOVICI, C. Law of the occurrence of energy and opacity in stars. p. 381.  
Vol. 8, no. 2, Apr./June 1956. BULETIN STIINTIFIC. Bucuresti, Rumania.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

POPOVICI, G; BADAREU, E.; STEFANESCU, D.

Contribution to the study of high-frequency discharges in methand p. 5

REVUE DE PHYSIQUE (Academia Republicii Populare Romine) Bucuresti *ROMANIA*  
Vol. 4, no. 1, 1959.

Monthly List of East European Accessions (EEAI) IC, Vol. 9, no. 2, <sup>FEB</sup>1960

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R/002/60/05/051/052  
D0021/D3001

3.2000  
29(1)

AUTHOR: Popovici, Călin, University Professor  
TITLE: Observing the Satellite-Space-Ship ✓  
PERIODICAL: Stiință și Tehnică, 1960, Nr 5, Supplement, p 2,  
col 3-5

ABSTRACT: The Soviet satellite-space-ship is intended to verify the possibility of automatic release and re-entry of the air-tight capsule.<sup>3</sup> Therefore, it is necessary to study the trajectory of the satellite-space-ship and of the air-tight capsule before and after release. The orbit elements have to be determined immediately after launching by the radio signals from the satellite which are received by several terrestrial stations. A special technique, which applies the Doppler-Fizeau phenomenon, is employed. Reference is made to the Observatoarele (Observa- ✓

Card 1/3

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R/002/60/05/051/052  
D0021/D3001

# Observing the Satellite-Space-Ship

tories) of the Academia RPR (Rumanian Academy) in Bucharest and Cluj<sup>4</sup> which are equipped with special apparatuses, making visual detection of the satellites possible. The Bucharest Observatory applies artillery binocular lenses with a  $7\frac{1}{2}^\circ$  field diameter. The latter has the possibility of recording the detection moments at a hundredth of a second with the aid of a chronograph with quartz generators. This Observatory is also equipped with a special "Nafo" photogrammetric camera, which has a great luminous power. The Cluj and Bucharest Observatories receive cables from the Moscow Space Center, which indicate the precise time and position of the satellite in the sky. With the help of cables from Moscow the Bucharest Observatory was able to detect and observe for 1 minute the satellite-space-ship and the booster rocket in the morning of 16 May 1960 at 3.54 hours. The satellite-space ship had the

Card 2/3



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D0021/D3001

Observing the Satellite-Space-Ship

luminescence of a star of  $1\frac{1}{2}$  magnitude, the booster  
rocket had an even greater luminous power, i.e.  
zero magnitude, changing its luminescence rapidly  
during a period of 1-2 seconds. X

Card 3/3

POPOVICI, Calin, prof.; CORVIN SINGEORZAN, Ion

Optical observations of the artificial satellites at the Astronomical Observatory of Bucharest, Station 131, July 15, 1959-June 1, 1960.  
Studii astron seismol 5 no.2:325-328 '61. (EEAI 10:9)

1. Observatorul astronomic din Bucuresti, Statia 131. 2.Comitetul de redactie, Studii si cercetari de astronomie si seismologie(for Popovici).

(Artificial satellite observations)

POPOVICI, Calin, prof. univ.

New ways in astrophysics. St si Teh Buc 14 no. 3:7 Ag '62.

POPOVICI, Calin, prof. dr.

Determination of the coordinates of the earth mass center.  
Rev geodezie 8 no. 2:3-6 '64.

1. Bucharest Observatory.

POPOVICI, Calin

Some geodetic uses of non-simultaneous observations of satellites.  
Studii astron seismol 9 no.2:201-206 1964.

1. Astronomical Observatory, Bucharest.

L 44200-66

ACC NR: AT6020485

SOURCE CODE: CZ/2514/65/000/051/0009/0010

AUTHOR: Popovici, C.

ORG: Bucharest Observatory

TITLE: Energy transfer in the sun. ✓

SOURCE: Ceskoslovenska akademie ved. Astronomicky ustav. Publikace, no.51, 1965. 3rd Consultation on Solar Physics and Hydromagnetics, Tatranska Lomnica, 13-16 October 1964, 9-10

TOPIC TAGS: solar interior, temperature gradient, adiabatic equilibrium, adiabatic temperature, star, convective equilibrium, ionization, convective phenomenon, nuclear energy generation, solar energy, solar energy transfer

ABSTRACT: The author states that the temperature gradient in the interior of the sun computed on the hypothesis of radiative or convective (adiabatic equilibrium and uniform chemical composition seems too low to explain the very high control temperature required for nuclear energy generation. The author considers that to raise the adiabatic temperature gradient, the variation of the mean molecular weight with depth in the sun must be considered. It is shown that the adiabatic temperature gradient cannot be raised by partial ionization or

Card 1/2

L 36484-66 FSS-2/T IJP(c) TT

ACC NR: AP6027075

SOURCE CODE: PO/0028/66/015/001/0003/0008

AUTHOR: Popovici, Calin--Popovits, K.

ORG: Bucharest Observatory, Bucharest

TITLE: Absolute directions in space and control of stellar triangulation equations

SOURCE: Geodezja i kartografia, v. 15, no. 1, 1966, 3-8

TOPIC TAGS: triangulation, artificial earth satellite

ABSTRACT: The author describes and analyzes, from the viewpoint of accuracy, the determination of absolute directions in space on the basis of positional observations by earth satellites. The theory underlying the method is reinforced with an experimental example based on observations carried out in Bucharest and Potsdam. Orig. art. has: 2 figures and 15 formulas. [JPRS: 36,457]

SUB CODE: 08, 22 / SUBM DATE: none / SOV REF: 001 / OTH REF: 004

Card 1/1

0967 0068

L 32807-66 ENP(e)/T/ENP(t)/ETI IJP(c) JD/JG/AT/WH  
ACC NR: AP6023766 SOURCE CODE: GE/0061/65/015/05-/0313/0320

AUTHOR: Badareu, E.; Popovici, C.; Iova, I.; Somesan, M.

ORG: Institute of Physics, Academy of the Rumanian People's Republic, Bucharest

TITLE: Hollow-cathode effect in cesium vapor

SOURCE: Annalen der physik, v. 15, no. 5-6, 1965, 313-320

TOPIC TAGS: cesium plasma, discharge tube, spectrographic analysis

ABSTRACT: The article deals with processes taking place in a hollow-cathode discharge tube with cesium vapor. The cathode here consists of two parallel plates; the negative charges travel from the space between these plates out toward the anode. The cathode plates are made of nickel embedded in quartz and a cesium pill inside the tube produces the vapor atmosphere. Two sets of measurements were made: 1) electrical (current vs. pressure and current vs. distance between the two cathode plates), 2) spectrographic (intensity distribution of the Cs II lines 4616.13 and 4867.5 Angstroms, also of the Ba I 6019.17 Angstrom line for comparison). This distribution of intensity has a maximum in the middle of the intercathode space; the magnitude of this maximum varies with pressure, attaining the highest value at about 0.01 mm Hg for both Cs lines. A direct relation between spectral in-

Card 1/2

0915

1590



L 32807-66

ACC NR: AP6023766

tensity and discharge current is obtained by eliminating pressure as the independent variable for both. As a result, a straight proportion between current and intensity is found. [JPRS]

SUB CODE: 20 / SUBM DATE: 09Nov64 / ORIG REF: 007 / SOV REF: 001  
OTH REF: 012

Card 2/2 mgs

RUSU, R., dr.; DEUTSCH, L., dr.; DULCA, Fl., dr.; GOIA, E., dr.; NICOLAU, Astra, dr.; MOCANU, Gh., dr.; POPOVICI, C., dr.; COTOL, S., dr.

Contribution on the influence of meteorological factors on the etiopathogenesis of acute vascular accidents. Med. intern. (Bucur) 17 no.5:595-608 My '65.

1. Lucrare efectuata in Sectia de boli interne, Spitalul Unificat, Deva.

POPOVICI Calin; DINESCU Alexandra; IRSMARU, Magdalena; CORVIN SINGEORZAN,  
Ion

Visual observations of artificial satellites obtained at the  
(1131) Bucharest Station in 1964. Studii astron 10 no.1:113-  
125 '65.

1. Astronomical Observatory, 5 Cutitul de Argint St., Bucharest.

POPOVICI, C; SOMESAN, M.

On the lighting phenomenon of the discharge in a nonhomogeneous electric field at low pressures in a particular geometry of electrodes. Studii cerc fiz 17 no.2:113-133 '65.

1. Institute of Physics, 114 Calea Victoriei, Bucharest. Submitted August 15, 1964.

POPOVICI, Calin

Absolute directions in space and control formulas in stellar triangulation. Studii astron 10 no.1:7-12 '65.

1. Astronomical Observatory, Bucharest. Submitted October 20, 1964.

POPOVICH, Konstantin P. [Popovici, Constantin P.] (Bucuresti)

Minimum conjunctive form of the Boolean Functions. Bull  
n. ch Rum 4 no.1/2:107-119 '61.

POPOVICI, C., prof. univ.

Solar studies during the International Year of the  
Calm Sun. St si Teh Buc 16 no. 1: 4 Ja '64.

NICOLAU, C.T., prof.; APATEANU, V., dr.; GRIGORIU, G., dr.; POPOVICI, C., dr.  
BIRZU, I., conf.; NECULA, V., dr.; GINGOLD, N., dr.; JOVIN, I., dr.  
GRIJOTTI, Florica, colaborator teh.; TEODORESCU, Viorica, colabora-  
tor teh.

Observations on technics of collection, preservation and ad-  
ministration of autologous bone marrow after radiotherapy and  
chemotherapy in neoplastic diseases. Med. intern. 15 no.12:  
1417-1423 D'63.

1. Membru corespondent al Academiei R.P.R. (for Nicolau). 2. Centrul  
de hematologie (for Popovici). 3. Spitalul "Prof.dr. I. Cantucuzino"  
(for Necula). 4. Spitalul "Vasile Roaita (for Jovin).

\*



GRIGORIU, Gh., dr.; APATEANU, Vl., dr.; TEITEL, P., dr.; POPOVICI, C., dr.  
PATICA, Cornelia, dr.

Thalassemia with intr~~e~~-erythrocytic corpuscles (Heinz bodies).  
Med. intern. 15 no.12:1489-1494 D'63.

1. Lucrare efectuata la Centrul de hematologie din Bucuresti  
(director prof. C.T.Nicolau).

\*

ROMANIA

GRIGORIU, Gh., MD; APATEANU, Vl., MD; TEITEL, P., MD; POPOVICI, C.,  
MD; PATICA, Cornelia, MD.

Center for Haematology, Bucharest (Centrul de hematologie din  
Bucuresti) - (for all); Director: Professor C. T. Nicolau.

Bucharest, Medicina Interna, No 12, Dec 63, pp 1489-1494

"Thalassaemia with Intraerythrocytic Corpuscles (Heinz'  
Corpuscles)."

(5)

POPOVICI, Calin

Limit of the central and medium temperature of the sun. Studi astron  
seismol 7 no.2:281-285 '62.

POPOVICI, Calin; SINGEORZAN, Ion Corvin; DINESCU, Alexandru

Visual observations of the artificial satellites of the earth made at the astronomical observatory in Bucharest, Station 131, in the period: January 1 - December 31, 1962. Studii astron apismol 8 no.1:121-129 '63.

POPOVICI, Galin, prof. univ.

Life in the universe. St si Teh Buc 14 no.1:22-29 Ap '62

POPOVICI, Calin, prof.

Nuclear explosions in the cosmos. St si Teh Buc 14 no.6:41  
Je '62.

POPOVICI, Calia

Geodesic work of the Scientific Committee on Space Research  
of the International Council of Scientific Unions. Rev geodezie  
8 no. 3:92-94 '64.

1. Scientific Secretary of the Astronautics Committee.

POPOVICI, Calin; CIRSMARU, Magdalena; DINESCU, Alexandru; SINGEORZAN,  
Ion Corvin

Visual observations of the earth's artificial satellites carried  
out at Station 1131 of the Astronomical Observatory in Bucharest  
during the period January 1-December 31, 1963. Studii astron  
? no. 1:101-111 '64.



POPOVICI, Calin

Determination of geocentric coordinates of satellites and observation stations. Studi1 astron seismol 8 no.1:11-18 '63.

POPOVICI, Calin; SINGEORZAN, Ion Gorvin; DINESCU, Alexandru

Visual observations of artificial satellites, made at the Station 131  
of the Bucharest Observatory from January 1st to December 31st, 1961.  
Studii astron seismol 7 no.2:317-322 '62.

3.2300

S/035/62/000/009/035/060  
A001/A101

AUTHOR: Popovici, Calin

TITLE: Application of Earth's artificial satellites to geodesy

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 9, 1962, 7,  
abstract 9653 ("Rev. geod. si organiz. terit", 1962, v. 6,  
3 - 16, Rumanian: Russian and French summaries)

TEXT: The author presents the main results of investigating perturbations in the motion of satellites (polar flattening, oblateness of equator, profile of geoid at equator). A method of determining geocentric locations of observational points is proposed, which call for neither simultaneous observations from several points, nor devices producing flashes on the satellite. Computational formulae are presented which can be employed without allowance for the Earth's shape and satellite proper motion. There are 8 references. ✓B

From author's summary

[Abstracter's note: Complete translation]

Card 1/1

POPOVICI, Calin

1. "From the Battle of the Union of Working Youth Under the Leadership of the Party, 1922-1924", pp 3-5.
2. "One of the Thousands of Youngsters", I. V. I. pp 5.
3. "The Joy of the First Plots", pp 6.
4. "The Success of Ion Popovici", pp 6.
5. "The Antagonists. The Ion Popovici Novels: I. The Antagonists", M. ANDRUSCIC, pp 7-9.
6. "The Use of Names on Acid Bells", "Pity, Pity, Candidate in Agriculture", pp 10-11.
7. "Novels in Soldiering", pp 12.
8. "Geparty", "Sofia Popovici, Candidate in Technical Sciences (candidate in technical sciences)", pp 14-17.
9. "Anti-Gravity", "Sofia Popovici", pp 14-17.
10. "72,000 lei income per factory of vegetables", I. CRISTO, pp 18-19.
11. "How a fluorescent tube is born", "Sofia Popovici, and I. ANDRUSCIC", pp 20-23.
12. "12 April 1961, a Year Since 'un' Formation into the 'Geparty', Sofia Popovici, Com. Unit, Secretary (Secretary) of the Agricultural Association (Com. de Agricultori) of the necessity of the Romanian People's Republic (Acad. R.P.R.), pp 24-25.
13. "The Offensive Against Cancer Continues", Dr. E. MACUTAN, pp 26-27.
14. "Life in the 'Geparty', Calin POPOVICI, Prof. Enst, pp 28-29.
15. "The Intercepting of Rockets", "Sofia Popovici, pp 30-33).
16. "Another Sofia Blunders. The History of Cretan 'Geparty', Sofia Popovici, and P. CRISTO, Editor Enst, pp 34-35.

S/058/62/000/004/151/160  
A061/A101

AUTHORS: Krejčí, V., Popovici, C.

TITLE: Effect of a hollow cathode on striations in glow discharge

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 32, abstract 4-3-63shch  
("Chekhosl. fiz. zh.", 1961, v. B11, no. 9, 682 - 684)

TEXT: The hollow cathode of an experimental discharge tube consisted of two parallel nickel plates. The tube was filled with neon up to 2.7 mm Hg. When a photomultiplier was used, the change of light intensity in time was recorded at different distances between the cathode plates and with constant discharge current. The effect of the hollow cathode, while neither producing intensified striation in the positive column nor acting upon other striation parameters, was found to impair the feedback between the anode and cathode, the magnitude of which in most cases determines the production of self-excited moving striations. There are 8 references. [Physics Institute, AS CSR; Physics Institute, AS RPR]

F. Ya.

[Abstracter's note: Complete translation]

Card 1/1

S/058/62/000/003/088/092  
A061/A101

27.6761

AUTHORS: Krejčí, V., Popovici, C.

TITLE: The effect of a hollow cathode on the lamination of glow discharge

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1962, 71, abstract 3Zh451  
("Chekhosl. fiz. zh.", 1961, v. B11, no. 9, 682-684)

TEXT: The effect of the spacing between two plane-parallel plates constituting the cathode of a discharge tube on self-excited moving layers in the discharge was investigated (by measuring the light intensity in the positive column at different distances from the cathode). At currents near the limit of self-excited layer formation, the layers were observed to disappear as the plates approached the critical spacing. When a multiple recurrent lamination wave was obtained in the discharge, the plate approach, while practically not changing the initial lamination wave, suppressed its recurrence noticeably. On a further plate approach, the freely excited layers again reappeared spontaneously. The formation of these layers is in most cases determined by the magnitude of feedback between anode and cathode through the external circuit. The effect of the hollow cathode, consequently, impairs this feedback. The main cause of

Card 1/2

POPOVICI, Calin, prof.; SINGEORZAN, Ion Corvin

Visual observations made at the Bucharest Observatory on the artificial satellites; Station 131 July 1, 1960-December 31, 1960.  
Studii astron seismol 6 no.1:75-80 '61.

1. Sef statiei, Observatorul Astronomic din Bucuresti, Statia 131 (for Popovici). 2. Ajutorul sef lui statiei, Observatorul Astronomic din Bucuresti, Statia 131 (for Singeorzan).

(Astronomy) (Artificial satellites)

POPOVICI, Calin

Total solar eclipse of February 1, 1961. Studii astron seismol 5  
no.2:221-227 '61. (EEAI 10:9)

1. Comitetul de redactie, Studii si cercetari de astronomie si  
seismologie.

(Eclipses, Solar)



POPAYOT, Galin

SURNAME, Given Names

Country: Rumania

Academic Degrees: -Prof. Univ.-

Affiliation: -not given-

Source: Bucharest, Stiinta si Tehnica, Vol XIII, No 11, Nov 1961, pp 17.

Data: "An Anti-Scientific Cosmic Experiment."

GPO 981643

~~SILVARI, Galin~~ ✓  
~~SOURCE (in copy); Given Name~~

Country: Rumania

Academic Degrees: #Prof. Univ.--

Affiliation: -not given-

Source: Bucharest, Stiinta si Tehnica, No 4, 1961, pp 32-33, 43.

Data: "The Eclipse of 15 February 1961."

POPOVICI, Calin

Determination of the geocentric position of an artificial satellite  
through the observations from two stations. Studii astron seismol  
4 no.2:299-304 '59. (EEAI 9:9)

1. Comitetul de redactie, Studii si cercetari de astronomie si  
seismologie.  
(Artificial satellites)

RUM/2-11-9-39/42

29(1)

AUTHOR: Popovici, Călin, University Professor

TITLE: The Space Rocket Explores Lunar Space

PERIODICAL: Stiință și Tehnică, Seria a II-a, Vol 11, Nr 9,  
Supplement, p 2, col 2-4 (RUM)

ABSTRACT: The author describes all the factors which have to be taken into consideration when launching a cosmic rocket at the Moon, and mentions an announcement by Hermann Oberth on all these difficulties. The factors are: an accurate initial speed of 11,080 km/sec, with a tolerance of less than 1 m/sec; the launching direction has to be computed with a precision up to 1 degree; the launching time has to be determined with a tolerance of only a few seconds. The influence of the solar, lunar and terrestrial gravitational pull on the rocket also has to be taken into consideration. The first Soviet space rocket was used to study the magnetic fields of the Earth and the Moon. Since the first rocket passed by the Moon at a distance of 5,000 - ✓

Card 1/4

The Space Rocket Explores Lunar Space

RUM/2-11-9-39/42

6,000 km, the lunar magnetism could not be satisfactorily measured. The second Soviet space rocket will probably clear up the problem of the terrestrial and lunar magnetic fields. The new space rocket will also help to clear up the problem of the two radiation zones, located around the Earth. The outer zone consists of 100-kev electrons which oscillate in the regions of the Earth's magnetic field. The regions at latitudes above  $65^{\circ}$  (polar regions) are free of these particles. The density of this zone increases up to a distance of 4 Earth radii and then decreases up to a distance of 10 Earth radii, where it reaches a constant level corresponding to the cosmic radiation of interplanetary space. Striking the rocket body, these electrons produce X-rays. The second zone is located closer to the Earth, especially in the region of the Equator (between  $35^{\circ}$  N and  $35^{\circ}$  S) at an altitude of 1,000 km. Electrons with an average energy of 100,000 kev predominate in this zone. The problems of these zones, ✓

Card 2/4

The Space Rocket Explores Lunar Space

RUM/2-11-9-39/42

named aureoles, are now being studied, since they will cause future space travelers many difficulties. According to the measurements performed by preceding rockets, the intensity of radiation is 4r at a height of 8,000 km, whereas man can stand only 0.3r per week. The primary cosmic rays contain a very low percentage of components consisting of heavy nuclei. Accurate determination of this proportion is very important in tracing the origin of cosmic radiation. At distances of over 9 Earth radii there are only a few cosmic particles of very high energy (hundreds of millions of ev). On the average two such particles pass through 1 sq cm per second, thus reducing the danger of actinic diseases. Since the first Soviet space rocket was launched during a period of weak solar activity, it is possible that this danger is much higher during a period of strong solar activity. The study of colli-✓

Card 3/4

The Space Rocket Explores Lunar Space

RUM/2-11-9-39/42

sions with micro-meteorites is of theoretical importance in determining the proportion of pulverulent material in the interplanetary medium. This is very important for future cosmic flights, since these meteorites travel at speeds of 4 km/sec and can pierce a space ship. The first Soviet space rocket has proved that particles with a mass of one-billionth of a gram struck the rocket surface only once in several hours. The second Soviet space rocket will help to solve some of these problems. The moment the container approached the vicinity of the Moon, an altimetrical device detached it from the rocket. This is a novelty in determining the position of a rocket in the vicinity of a celestial body.

ASSOCIATION: Observatorul astronomic (Astronomical Observatory),  
Bucharest ✓

Card 4/4

RUM/2-11-9-39/42

29(1)

AUTHOR: Popovici, Călin, University Professor

TITLE: The Space Rocket Explores Lunar Space

PERIODICAL: Știință și Tehnică, Seria a II-a, Vol 11, Nr 9,  
Supplement, p 2, col 2-4 (RUM)

ABSTRACT:

The author describes all the factors which have to be taken into consideration when launching a cosmic rocket at the Moon, and mentions an announcement by Hermann Oberth on all these difficulties. The factors are: an accurate initial speed of 11,080 km/sec, with a tolerance of less than 1 m/sec; the launching direction has to be computed with a precision up to 1 degree; the launching time has to be determined with a tolerance of only a few seconds. The influence of the solar, lunar and terrestrial gravitational pull on the rocket also has to be taken into consideration. The first Soviet space rocket was used to study the magnetic fields of the Earth and the Moon. Since the first rocket passed by the Moon at a distance of 5,000 - ✓

Card 1/4



The Space Rocket Explores Lunar Space

RUM/2-11-9-39/42

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Card 2/4

The Space Rocket Explores Lunar Space

RUM/2-11-9-39/42

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Card 3/ 4

The Space Rocket Explores Lunar Space

RUM/2-11-9-39/42

sions with micro-meteorites is of theoretical importance in determining the proportion of pulverulent material in the interplanetary medium. This is very important for future cosmic flights, since these meteorites travel at speeds of 4 km/sec and can pierce a space ship. The first Soviet space rocket has proved that particles with a mass of one-billionth of a gram struck the rocket surface only once in several hours. The second Soviet space rocket will help to solve some of these problems. The moment the container approached the vicinity of the Moon, an altimetrical device detached it from the rocket. This is a novelty in determining the position of a rocket in the vicinity of a celestial body.

ASSOCIATION: Observatorul astronomic (Astronomical Observatory),  
Bucharest ✓

Card 4/4

GOLSTEIN, I.; POPOVICI, C.

The action of 2,3-dimercaptopropanol (BAL) in experimental poisoning by nitrobenzene. J. Hyg. Epidem., Praha 2 no.2:237-243 1958.

1. Institutul de Igiena Muncii si Boli Profesionale R. P. R. Sos. Stefan. cel Mare nr. 89, Bucuresti, Roumania.

(DIMERCAPROL, effects

on exper. nitrobenzene pois. in dogs & rats (Fr))

(NITROBENZENE, poisoning

exper., eff. of dimercaprol in dogs & rats (Fr))